

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please amend claim 1 as follows.

1. (Currently amended) A method of producing an optical element comprising applying a paste containing at least one compound selected from lithium compounds, potassium compounds, rubidium compounds, cesium compounds, silver compounds, and thallium compounds $[[,]]$; an organic resin $[[,]]$; and an organic solvent to a glass substrate containing an alkali metal component as a glass component and then performing heat treatment at a temperature below the softening temperature of the glass substrate, whereby the metal ions in the metal compounds contained in the paste are diffused into the glass substrate as at least one of Li^+ ions, K^+ ions, Rb^+ ions, Cs^+ ions, Ag^+ ions, and Tl^+ ions, by ion exchange with the alkali metal component of the glass substrate.

2. (Original) The method according to claim 1 wherein the glass substrate is made of a glass containing at least 2% by weight of alkali metal, calculated on an oxide basis, the glass being a silicate glass, borosilicate glass, phosphate glass, or fluorophosphate glass.

3. (Previously presented) An optical element produced by the method of claim 1.

4. (Original) The optical element according to claim 3 which is a graded refractive index lens, a graded refractive index lens array, an optical waveguide, or a diffraction grating.

5. (Original) The optical element according to claim 4 which is a slab optical waveguide or a channel optical waveguide.

6. (Previously presented) An optical element produced by the method of claim 2.

7. (Previously presented) The optical element according to claim 6 which is a graded refractive index lens, a graded refractive index lens array, an optical waveguide, or a diffraction grating.

8. (Previously presented) The optical element according to claim 7 which is a slab optical waveguide or a channel optical waveguide.